

ABAQUS User Guide

■ Version

ABAQUS 6.8-2 installed March 19, 2009. (Default version)

ABAQUS 6.7 installed on September 6, 2007.

ABAQUS 6.65 installed on April 2007 as the teaching license.

ABAQUS 6.4-1 installed on June 8, 2004.

■ What is ABAQUS?

ABAQUS is based on the finite element stiffness method, with mixed stress-displacement formulations included. IT is designed specifically to do advanced structural analysis on very large linear models or highly nonlinear response models. User subroutines can be incorporated with main program or in post processing.

■ What class of problems may be simulated?

- Geometry Meshing using predefined elements (1, 2, or 3D)
- Kinematics (displacements, rotations, and strains)
- Material Modeling (metals, rubber, plastics, composites, concrete, sand, clay, and crushable foam)
- Boundary and Loading Conditions (point forces, distributed loads, thermal loading, follower force effects, and modeling the interaction between deforming bodies)
- Analyses (provides static and dynamic, linear and nonlinear stress analysis, heat transfer, temperature/stress, and acoustic medium-structural vibration analysis. Frequency determination or eigenvalue buckling load estimation. Fracture mechanics, design evaluation capability, and plastic crack solutions)

■ Linux Access Command

- . use abaqus
- . use abateach

■ Shared Academic Site License

ABAQUS is available at the University of Calgary through the shared purchase of the license by a few people. If you need to use ABAQUS on a regular basis and plan to use it for classes and run multiple jobs, IT will ask you to contribute to the cost of the license.

Through the sharing the cost with several groups we are able to purchase a limited number of licenses which are shared among ABAQUS users. Contact [Anne at appinst@ucalgary.ca](mailto:Anne.at.appinst@ucalgary.ca) or 403-220-4464 to find out more information on this shared license.

■ What level of support is offered for this software?

Maintenance: IT provides no guarantee that new versions will be installed or the bugs will be fixed.

Documentation: Complete documentation may be available. Seminars are not available.

Consultation: Limited consulting may be available.

For more information, contact Doug Phillips:
phillips@ucalgary.ca or 403-220-8445